



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

GARDEN PEA

'Ceras'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 29th day of January in the year of our Lord one thousand nine hundred and eighty-one.

Attest:

Edward J. Lee
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY XP-F105		1b. VARIETY NAME <u>KAMAR</u> <i>Ceras</i> ¹⁸⁷ ₈₀₁₀₂₇ <i>187 800818</i>		FOR OFFICIAL USE ONLY PV NUMBER 8000117	
2. KIND NAME Garden Pea		3. GENUS AND SPECIES NAME Pisum sativum		FILING DATE 5/12/80	TIME 3:30 <u>P.M.</u>
4. FAMILY NAME (BOTANICAL) Leguminosae		5. DATE OF DETERMINATION 1978 August		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 5/12/80 8/4/80
6. NAME OF APPLICANT(S) Asgrow Seed Company		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Kalamazoo, MI 49001 9620-190-1		8. TELEPHONE AREA CODE AND NUMBER 616-385-6605	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware		11. DATE OF INCORPORATION March 22, 1968
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: John A. Batcha Asgrow Seed Company 9620-190-1 Kalamazoo, MI 49001					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO			14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.)					

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. March 18, 1980 (DATE)	
John A. Batcha <i>John A. Batcha</i> (SIGNATURE OF APPLICANT)	

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A: Origin and Breeding History of ~~XP-F105~~ ^{KAMAR}, Garden Pea.
Ceras ^{CERAS}
~~KAMAR~~

The original cross made in 1970 was Recette x Beacon and ~~XP-F105~~ has been developed by straight selection from that cross. In 1976 a small increase was made from a promising F7 family and in 1978 following observation, yield trials and further increase, this line was designated ~~XP-F105~~ ^{CERAS}
~~KAMAR~~

The basic stock seed of ~~XP-F105~~ ^{CERAS} was produced in 1978 from approximately 200 progenies derived from single vine selections. These progenies were very uniform and any progenies suspected of being offtype were eliminated,
~~KAMAR~~

Observations indicate ~~XP-F105~~ ^{CERAS} is uniform and stable.

Set 800818
Set 801027

8000117

^{CERAS}
~~KAMAR~~

EXHIBIT B: Novelty Statement Concerning ~~XP-F105~~ Garden Pea.

^{CERAS}

~~KAMAR~~

To our knowledge, the commercial varieties most similar to ~~XP-F105~~ are Bolero and Beacon. Comparative characteristics that make ~~XP-F105~~ a distinct variety include, but are not necessarily restricted to the following:

1. ~~XP-F105~~ is 50 heat units later to processing maturity than Beacon and 20 heat units earlier than Bolero. (Table.)
2. The size of fresh berries of ~~XP-F105~~ is over one-half sieve size smaller than that of Bolero. (Table.)
3. The dry seed size of ~~XP-F105~~ is about 20 percent smaller than that of Bolero or Beacon.
4. ~~XP-F105~~ has three or four pods per node, whereas Bolero has three pods per node and Beacon is strictly double-podded.
5. ~~XP-F105~~ is about 20 cm. taller than Beacon at processing maturity.

~~XP-F105~~ is a unique freezer pea for its sieve size, maturity and podding habit.

157 800818

157 801027

Exhibit B: ~~KAMAR~~ XP-F105 Garden Pea
Attachment ~~CERAS~~

8000117

1978 Trial Data at 115 Tenderometer:

<u>Variety</u>	<u>Degree Days</u>	<u>Average Sieve Size</u>	<u>Yield (lbs./acre)</u>
KAMAR XP-F105 CERAS	1480	3.6	8,300
Bolero	1500	4.1	11,100

1979 Trial Data at 115 Tenderometer:

<u>Variety</u>	<u>Degree Days</u>	<u>Average Sieve Size</u>	<u>Yield (lbs./acre)</u>
KAMAR XP-F105 CERAS	1420	3.4	8,500
Beacon	1370	3.3	7,900
Bolero	1440	4.1	10,700

Asgrow Seed Company
Plant Variety Protection

~~XP-F105~~ ~~KAMAR~~ ~~CERAS~~ JEF 800818
March 18, 1980 JEF 801027

DAVIS HOXIE FAITHFULL & HAPGOOD

45 ROCKEFELLER PLAZA

NEW YORK, N. Y. 10111

RICHARD WHITING
CYRUS S. HAPGOOD
CASPAR C. SCHNEIDER, JR.
WILLIAM F. KILGANNON
DANIEL H. STEIDL
STANLEY L. AMBERG
JOHN B. PEGRAM
STEPHEN D. KAHN
WILLIAM J. HONE
THOMAS E. SPATH
CHARLES W. BRADLEY
RICHARD P. FERRARA
CLINTON H. NEAGLEY
PETER H. SUCCI
ROBERT H. FISCHER
PETER H. PRIEST
ARNOLD B. DOMPIERI
STEVEN D. GLAZER
BRADFORD S. BREEN

WILLIAM F. SONNEKALB, JR.
ROLAND PLOTTTEL
COUNSEL

6 August 1982

TELEX: 12 8162 (EXPLICIT NYK)
INTERNATIONAL TELEX: 421236
TELECOPIER: 12121 586-1461
CABLE: EXPLICIT

TELEPHONE: (212) 757-2200

8638

Miss Patricia Wheeler
Plant Variety Protection Office
Room 500
National Agricultural Library
Beltsville, Maryland 20705

Dear Miss Wheeler:

Please send us Plant Variety Certificates for the following items:

1. Cauliflower (7400052) 8 pages.
2. Peas (8000117) 7 pages.
3. Soybean (7300061) 6 pages.
4. Wheat (8000162) 8 pages.

Enclosed is our check in the amount of \$29.00.

Thank you.

Very truly yours,

Clinton H. Neagley
mm

Clinton H. Neagley

CHN:mm
Encl

DAVIS HOXIE FAITHFULL & HAPGOOD		16589
45 ROCKEFELLER PLAZA		
NEW YORK, NY 10111		
PAY TO THE ORDER OF	<i>U.S. Treasurer</i>	<i>Aug 6 1982</i> 1-12/210
THE SUM 29 DOLS 00 CTS		\$ 29.00
		DOLLARS
CHEMICAL BANK		
11 West 51st Street		
New York, N.Y. 10019		
FOR	<i>Dori G. Barnett</i>	
⑈016589⑈ ⑆021000128⑆ 007⑈055358⑈		

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705
OBJECTIVE DESCRIPTION OF VARIETY
PEA (*PISUM SATIVUM*)

NAME OF APPLICANT(S)

Asgrow Seed Company

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

9620-190-1

Kalamazoo, MI 49001

VARIETY NAME OR TEMPORARY
DESIGNATION

XP-F105

CERAS
KAMAR

FOR OFFICIAL USE ONLY

PVPO NUMBER

8000117

Place the appropriate number that describes the varietal character in the boxes below.

Place a zero in first box (e.g. or) when number is either 99 or less or 9 or less.

1. TYPE:

1 = GARDEN

2 = FIELD

3 = EDIBLE-PODDED

2. MATURITY:

Node number of first bloom:

No. of days to processing

Heat Units

No. of days Earlier than

1 = ALASKA WR

2 = THOMAS LAXTON WR

3 = LITTLE MARVEL

No. of days Later than

4 = WANDO

5 = ALDERMAN WR

6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

Cm. HIGH

Cm. Shorter than

1 = ALASKA WR

2 = THOMAS LAXTON WR

3 = LITTLE MARVEL

Cm. Taller than

4 = WANDO

5 = ALDERMAN WR

6 = AUSTRIAN WINTER

4. VINE:

Habit:

1 = DETERMINATE 2 = INDETERMINATE

Stockiness:

1 = SLIM (Alaska)

3 = HEAVY (Alderman)

2 = MEDIUM (Thomas Laxton WR)

Branching:

1 = NONE (Alaska)

2 = 1-2 BRANCHES (Little Marvel)

3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar)

Internodes:

1 = STRAIGHT

2 = ZIG ZAG

NUMBER OF NODES

5. LEAFLETS:

Color:

1 = LIGHT GREEN (Alaska WR)

2 = MED. GREEN (Thomas Laxton WR)

3 = DARK GREEN (Alderman)

4 = OTHER (Specify)

Wax:

1 = NONE 2 = LIGHT 3 = MEDIUM

4 = HEAVY

1 = NOT MARBLED

2 = MARBLED (Alaska)

Number of leaflet pairs:

1 = NOT PAIRED

2 = ONE

3 = TWO

4 = THREE OR MORE

6. STIPULES:

1 = LACKING

2 = PRESENT

1 = NOT CLASPING

2 = CLASPING

1 = NOT MARBLED

2 = MARBLED

Size (Compared with leaflets):

1 = SMALLER

2 = SAME

3 = LARGER

Color (Compared with leaflets):

1 = LIGHTER

2 = SAME

3 = DARKER

7. FLOWER COLOR:

VENATION

STANDARD

WING

KEEL

1 = WHITE

2 = GREENISH

3 = LAVENDER

4 = PURPLE 5 = RED

6 = OTHER (Specify)

8. PODS:

Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)
 Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman)
4 = OTHER (Specify) _____
 Surface: 1 = SMOOTH 2 = ROUGH Surface: 1 = SHINY 2 = DULL
 Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE
5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____
 CM. LENGTH MM. WIDTH (Between sutures) NO. SEEDS PER POD

9. SEEDS (95-100 Tenderometer):

Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____
Seive: %

SEEDS (Dry, Mature):

Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED
 Surface: 1 = SMOOTH 2 = DIMPLED Surface: 1 = SHINY 2 = DULL
3 = WRINKLED
 Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED
 Primary Color: 1 = CREAMY-WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN
5 = DARK GREEN 6 = BLUE-GREEN 7 = YELLOW 8 = BROWN 9 = RED
 Secondary Color: 10 = GRAY 11 = BLACK
 Hilum Floor Color: 1 = WHITE 2 = TAN Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE
3 = BLACK
 GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

FUSARIUM WILT NEAR-WILT DOWNY MILDEW
 ASCOCHYTA BLIGHT POWDERY MILDEW BACTERIAL BLIGHT
 MOSAIC PEA ENATION MOSAIC YELLOW BEAN MOSAIC
 OTHER (Specify) _____

11. INSECT: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

APHIDS OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	Bolero	Fresh Seed Color	Bolero
Leaf Color	Wando	Mature Seed Color	Bolero
Pod Color	Bolero	Seed Shape	Bolero
Pod Shape	Bolero	Plant Habit	Bolero

COMMENTS:

MAY 12 1980